

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/686,964

DATE: 01/08/2002

TIME: 16:16:28

Input Set : A:\sequence listing.txt

Output Set: N:\CRF3\01082002\I686964.raw

ENTERED

3 <110> APPLICANT: Maertens, Geert  
 4 Bosman, Alfons  
 5 Sablon, Erwin  
 6 Zrein, Maan  
 8 <120> TITLE OF INVENTION: IMPROVED IMMUNODIAGNOSTIC ASSAYS USING REDUCING AGENTS  
 10 <130> FILE REFERENCE: 2551-48  
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/686,964  
 C--> 13 <141> CURRENT FILING DATE: 2000-10-27  
 15 <150> PRIOR APPLICATION NUMBER: PCT/EP99/02547  
 16 <151> PRIOR FILING DATE: 1999-04-15  
 18 <150> PRIOR APPLICATION NUMBER: EP 98870087.8  
 19 <151> PRIOR FILING DATE: 1998-04-17  
 21 <160> NUMBER OF SEQ ID NOS: 38  
 23 <170> SOFTWARE: PatentIn Ver. 2.0  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 36  
 28 <212> TYPE: DNA  
 29 <213> ORGANISM: Hepatitis C virus  
 31 <400> SEQUENCE: 1  
 32 gggccccacc atggggggtg cgaaggcggg ggactt 36  
 35 <210> SEQ ID NO: 2  
 36 <211> LENGTH: 35  
 37 <212> TYPE: DNA  
 38 <213> ORGANISM: Hepatitis C virus  
 40 <400> SEQUENCE: 2  
 41 ctattagctg aaagtcgact gtctgggtga cagca 35  
 44 <210> SEQ ID NO: 3  
 45 <211> LENGTH: 279  
 46 <212> TYPE: PRT  
 47 <213> ORGANISM: Hepatitis C virus  
 49 <400> SEQUENCE: 3  
 50 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Asn Leu Glu  
 51 1 5 10 15  
 53 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala  
 54 20 25 30  
 56 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser  
 57 35 40 45  
 59 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Phe Lys  
 60 50 55 60  
 62 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala  
 63 65 70 75 80  
 65 Tyr Met Ser Arg Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val  
 66 85 90 95  
 68 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys  
 69 100 105 110  
 71 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Met Ile  
 72 115 120 125

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74 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
75      130      135      140
77 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
78 145      150      155      160
80 Ala Thr Ala Ala Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
81      165      170      175
83 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys
84      180      185      190
86 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
87      195      200      205
89 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Thr Ala Leu
90      210      215      220
92 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
93 225      230      235      240
95 Pro Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr
96      245      250      255
98 Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
99      260      265      270
101 Thr Gln Thr Val Asp Phe Ser
102      275
106 <210> SEQ ID NO: 4
107 <211> LENGTH: 279
108 <212> TYPE: PRT
109 <213> ORGANISM: Hepatitis C virus.
111 <400> SEQUENCE: 4
112 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Asn Leu Glu
113 1      5      10      15
115 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
116      20      25      30
118 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
119      35      40      45
121 Gly Lys Ser Thr Thr Val Pro Ala Val Tyr Ala Ala Gln Gly Phe Lys
122      50      55      60
124 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala
125 65      70      75      80
127 Tyr Met Ser Arg Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
128      85      90      95
130 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
131      100      105      110
133 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
134      115      120      125
136 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
137      130      135      140
139 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
140 145      150      155      160
142 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
143      165      170      175
145 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys
146      180      185      190

```

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148 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg Arg Leu Ile Phe Cys
149      195      200      205
151 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Thr Ala Leu
152      210      215      220
154 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
155 225      230      235      240
157 Pro Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr
158      245      250      255
160 Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
161      260      265      270
163 Thr Gln Thr Val Asp Phe Ser
164      275
168 <210> SEQ ID NO: 5
169 <211> LENGTH: 279
170 <212> TYPE: PRT
171 <213> ORGANISM: Hepatitis C virus
173 <400> SEQUENCE: 5
174 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
175 1      5      10      15
177 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
178      20      25      30
180 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
181      35      40      45
183 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Gly Gln Gly Tyr Lys
184      50      55      60
186 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Leu Gly Ala
187 65      70      75      80
189 Tyr Met Ser Lys Val His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
190      85      90      95
192 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
193      100      105      110
195 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
196      115      120      125
198 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
199      130      135      140
201 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
202 145      150      155      160
204 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
205      165      170      175
207 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Cys Gly Lys
208      180      185      190
210 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
211      195      200      205
213 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Asn Leu Val Ala Leu
214      210      215      220
216 Gly Val Asn Pro Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
217 225      230      235      240
219 Pro Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr
220      245      250      255

```

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222 Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
223           260           265           270
225 Thr Gln Thr Val Asp Phe Ser
226           275
230 <210> SEQ ID NO: 6
231 <211> LENGTH: 279
232 <212> TYPE: PRT
233 <213> ORGANISM: Hepatitis C virus
235 <400> SEQUENCE: 6
236 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
237   1           5           10           15
239 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
240           20           25           30
242 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
243           35           40           45
245 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys
246           50           55           60
248 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala
249   65           70           75           80
251 Tyr Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
252           85           90           95
254 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
255           100          105          110
257 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
258           115          120          125
260 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly
261           130          135          140
263 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
264 145           150           155           160
266 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
267           165          170          175
269 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys
270           180          185          190
272 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
273           195          200          205
275 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Pro Val Ala Leu
276           210          215          220
278 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Pro Val Ile
279 225           230           235           240
281 Pro Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr
282           245          250          255
284 Gly Phe Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
285           260          265          270
287 Thr Gln Thr Val Asp Phe Ser
288           275
292 <210> SEQ ID NO: 7
293 <211> LENGTH: 279
294 <212> TYPE: PRT
295 <213> ORGANISM: Hepatitis C virus

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Input Set : A:\sequence listing.txt

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297 &lt;400&gt; SEQUENCE: 7

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298 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
299   1           5           10           15
301 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
302           20           25           30
304 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
305           35           40           45
307 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys
308           50           55           60
310 Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala
311  65           70           75           80
313 Tyr Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val
314           85           90           95
316 Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys
317           100          105          110
319 Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile
320           115          120          125
322 Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Asp Ile Gly
323           130          135          140
325 Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
326 145          150          155          160
328 Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile
329           165          170          175
331 Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys
332           180          185          190
334 Ala Ile Pro Leu Glu Ala Ile Lys Gly Gly Arg His Leu Ile Phe Cys
335           195          200          205
337 His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Val Ala Leu
338           210          215          220
340 Gly Val Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile
341 225          230          235          240
343 Pro Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr
344           245          250          255
346 Gly Phe Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val
347           260          265          270
349 Thr Gln Thr Val Asp Phe Ser
350           275

```

354 &lt;210&gt; SEQ ID NO: 8

355 &lt;211&gt; LENGTH: 279

356 &lt;212&gt; TYPE: PRT

357 &lt;213&gt; ORGANISM: Hepatitis C virus

359 &lt;400&gt; SEQUENCE: 8

```

360 Met Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu Ser Leu Glu
361   1           5           10           15
363 Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala
364           20           25           30
366 Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
367           35           40           45
369 Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys

```

## VERIFICATION SUMMARY

DATE: 01/08/2002

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TIME: 16:16:29

Input Set : A:\sequence listing.txt

Output Set: N:\CRF3\01082002\I686964.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number  
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date